

January 2022

Type SR5 Sanitary Pressure Regulator



W8966

Figure 1. Type SR5



WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion, fire and/or chemical contamination causing property damage and personal injury or death.

Fisher™ sanitary regulators must be installed, operated and maintained in accordance with federal, state and local codes, rules and regulations and Emerson Process Management Regulator Technologies, Inc. instructions.

If the regulator vents gas or a leak develops in the system, service to the unit may be required. Failure to correct trouble could result in a hazardous condition.

Installation, operation and maintenance procedures performed by unqualified personnel may result in improper adjustment and unsafe operation. Either condition may result in equipment damage or personal injury. Use qualified personnel when installing, operating and maintaining the Type SR5 Sanitary Pressure Regulator.

Introduction

The Type SR5 self-contained pressure regulators are suitable for pressure control of steam, liquid or gaseous service. Typical setpoint ranges from 2 to 135 psig / 0.14 to 9.3 bar (ranges vary depending on body size). These regulators are designed to meet sanitary application and material requirements.

Scope of the Manual

This manual provides installation, startup, maintenance and parts ordering information for the Type SR5 Sanitary Pressure Regulator.

Type SR5

Specifications

The Specifications section on this page provides the ratings and other specifications for the Type SR8. The following information is stamped on the nameplate fastened on the regulator at the factory: type; body size; maximum inlet, outlet and differential pressure; maximum pressure above setpoint; maximum temperature; spring range; cage type; trim and diaphragm material.

Body Sizes, Inlet and Outlet Connection Style

1/2, 3/4, 1, 1-1/2, 2 and 3 in. /
15, 20, 25, 40, 40 x 25, 50 and 80 mm

End Connection⁽⁴⁾

Tri-Clamp® Sanitary connections

Body Pressure/Temperature Ratings⁽¹⁾

MAXIMUM TEMPERATURE		MAXIMUM INLET PRESSURE		MAXIMUM OUTLET PRESSURE	
°F	°C	psig	bar	psig	bar
150	65	210	14.5	210	14.5
275	135	180	12.4	180	12.4
400	204	160	11.0	160	11.0

Maximum Operating Pressures⁽¹⁾⁽³⁾

See Table 1

Set Pressure Ranges

See Table 2

Maximum Differential Pressures⁽¹⁾

See Table 3

Regulator Temperature Capabilities⁽¹⁾

See Table 4

Pressure Registration

Internal

Vacuum Protection Option

Maximum Vacuum Pressure
14 psig / 0.96 bar (vacuum)

Service Media

1/2, 3/4, 1 and 1-1/2 x 1 in. / 15, 20, 25 and 40 x 25 mm: Steam, Gas and Liquid

1-1/2 in. / 40 mm full port: Steam and Gas only, Liquid not recommended

2 and 3 in. / 50 and 80 mm: Steam, Gas and Liquid Service

Options

Vacuum protection
Pressure loaded spring case
T-handle adjusting screw

Pressure Loaded Spring Case Option

Maximum Loading Pressure

1/2, 3/4 and 1 in. / 15, 20 and 25 mm bodies:

135 psig / 9.3 bar

1-1/2 in. / 40 mm body: 100 psig / 6.9 bar

2 and 3 in. / 50 and 80 mm bodies:

75 psig / 5.2 bar

1/4 NPT tapped vent connection

Certifications Available Upon Request

FDA approved elastomers/plastics
Material and Functional Test Certificates
USP Class VI approved elastomers/plastics⁽²⁾
ADI free compliant elastomers/plastics⁽²⁾

1. The pressure/temperature limits in this Instructional Manual and any applicable standard or code limitation should not be exceeded.

2. Contact your local Sales Office for details on available constructions.

3. Maximum pressure to prevent damage to internal parts and leakage to atmosphere.

4. End connection clamps and gaskets to be supplied by the user.

Principle of Operation

Pressure in the controlled system (regulator outlet pressure) registers beneath the diaphragm of the regulator and opposes the force provided by the predetermined spring compression. When regulator spring force exceeds diaphragm force exerted by the outlet pressure, the spring will keep the valve plug open to permit additional flow to the downstream system. As downstream demand decreases the outlet pressure will increase. This increase registers on the diaphragm and the valve plug moves closer to the orifice to decrease the flow rate.

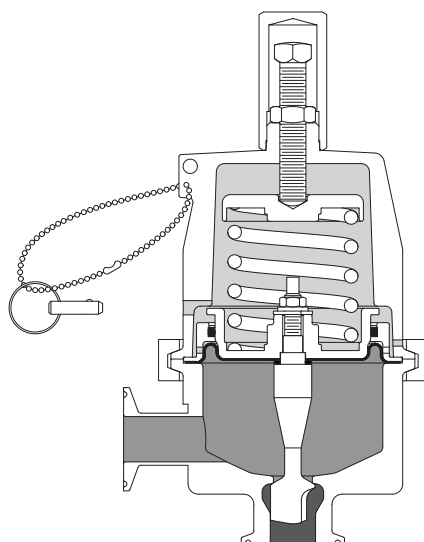
Installation

Clean out all pipelines before installation of the regulator and check to be sure the regulator has not been damaged or collected foreign material during shipping. The regulator may be installed in any position desired. However, to ensure self-draining (from outlet to inlet) the regulator should be installed with the spring case in the upright vertical position. The arrow on the body indicates flow direction.

The piping flange to regulator end connection flange clamps and gaskets are supplied by the user. Clamp gaskets must be compatible with the system requirements. Install and tighten clamps to manufacture's specifications.

Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times.



■ INLET PRESSURE
 ■ OUTLET PRESSURE
 ■ ATMOSPHERIC PRESSURE

Figure 2. Type SR5 Operational Schematic

Table 1. Maximum Operating Pressures

BODY SIZE		MAXIMUM TEMPERATURE		MAXIMUM INLET PRESSURE		MAXIMUM OUTLET PRESSURE	
In.	mm	°F	°C	psig	bar	psig	bar
1/2, 3/4, 1, 1-1/2	15, 20, 25, 40	150	65	210	14.5	210	14.5
		275	135	180	12.4	180	12.4
		400	204	160	11.0	160	11
2 and 3	50 and 80	150	65	210	14.5	150	10.3
		275	135	180	12.4	125	8.6
		400	204	160	11.0	110	7.6

Table 2. Outlet Pressure Ranges and Control Spring Data

BODY SIZE		OUTLET PRESSURE RANGE		COLOR	WIRE DIAMETER		FREE LENGTH		PART NUMBER
In.	mm	psig	bar		In.	mm	In.	mm	
1/2, 3/4	15, 20	2 to 8	0.14 to 0.55 ⁽¹⁾	Blue	0.138	3.51	2.75	69.9	GE06780X012
		5 to 25	0.34 to 1.7	Silver	0.177	4.50	2.75	69.9	GE06781X012
		10 to 50	0.69 to 3.4	Green	0.192	4.88	2.75	69.9	GE06782X012
		25 to 90	1.7 to 6.2	Red	0.225	5.72	2.75	69.9	GE06783X012
		35 to 135	2.4 to 9.3	Red Yellow	0.225 0.148	5.72 3.76	2.75 2.75	69.9 69.9	GE06783X012 GE06784X012
1, 1-1/2 x 1	25, 40 x 25	2 to 8	0.14 to 0.55 ⁽¹⁾	Blue	0.225	5.72	3.25	82.6	GE02763X012
		5 to 25	0.34 to 1.7	Silver	0.282	7.16	3.25	82.6	GE02764X012
		10 to 50	0.69 to 3.4	Green	0.331	8.41	3.25	82.6	GE02765X012
		25 to 90	1.7 to 6.2	Red	0.362	9.19	3.25	82.6	GE02766X012
		35 to 135	2.4 to 9.3	Red Yellow	0.362 0.250	9.19 6.35	3.25 3.25	82.6 82.6	GE02766X012 GE06090X012
1-1/2 full port	40 full port	5 to 25	0.34 to 1.7	Silver	0.282	7.16	3.25	82.6	GE02764X012
		10 to 50	0.69 to 3.4	Green	0.331	8.41	3.25	82.6	GE02765X012
		25 to 75	1.7 to 5.2	Red	0.362	9.19	3.25	82.6	GE02766X012
		35 to 100	2.4 to 6.9	Green Yellow	0.331 0.250	8.41 6.35	3.25 3.25	82.6 82.6	GE02765X012 GE06090X012
2 and 3	50 and 80	10 to 25	0.69 to 1.7	Silver	0.562	14.3	6.00	152	GE14003X012
		15 to 50	1.0 to 3.4	Green	0.625	15.9	6.00	152	GE14004X012
		25 to 75	1.7 to 5.2	Red	0.625	15.9	6.00	152	GE14005X012

1. The 2 to 8 psig / 0.14 to 0.55 bar spring is not available with the metal diaphragm.

Table 3. Maximum Differential Pressures

BODY SIZE		PRESSURE RANGE		COLOR	MAXIMUM DIFFERENTIAL PRESSURE	
In.	mm	psig	bar		psid	bar d
1/2, 3/4, 1 and 1-1/2 x 1	15, 20, 25 and 40 x 25	2 to 8	0.14 to 0.55	Blue	50	3.4
		5 to 25	0.34 to 1.7	Silver	75	5.2
		10 to 50	0.69 to 3.4	Green	100	6.9
		25 to 90	1.7 to 6.2	Red	125	8.6
		35 to 135	2.4 to 9.3	Red/Yellow	125	8.6
1-1/2 full port	40 full port	5 to 25	0.34 to 1.7	Silver	75	5.2
		10 to 50	0.69 to 3.4	Green	100	6.9
		25 to 75	1.7 to 5.2	Red	125	8.6
		35 to 100	2.4 to 6.9	Green/Yellow	125	8.6
2 and 3	50 and 80	10 to 25	0.69 to 1.7	Silver	60	4.1
		15 to 50	1.0 to 3.4	Green	120	8.3
		25 to 75	1.7 to 5.2	Red	130	9.0

Pressure Loaded Construction

The spring case can be pressure loaded to adjust outlet pressure. An optional tapped spring case, guide ring seal and sealing washer on the adjusting screw must be used for these applications. The loading pressure is connected to the 1/4 NPT connection in the spring case allowing registration on the spring side of the diaphragm. Adjusting loading pressure will proportionally change the outlet pressure setting of the regulator. A small amount of mechanical spring load, in addition to the pressure load, is recommended. Regulator set pressure achieved from the combination of spring load and pressure load should not exceed the outlet pressure ranges listed in Table 2.

Overpressure Protection

The recommended pressure limitations are stamped on the regulator nameplate. Some type of overpressure protection is needed if the actual inlet pressure exceeds the maximum operating outlet pressure rating. Overpressure protection should also be provided if the regulator inlet pressure is greater than the safe working pressure of downstream equipment.

Startup

The regulator is factory set to the midpoint of the spring range. To change the setpoint, refer to the Adjustment section for directions. **Make sure the CIP/SIP Pin (key 30, Figure 4) is not installed in the spring case.** See the section on Clean in Place or Steam in Place (CIP/SIP). With proper installation completed and relief valves properly adjusted (when applicable), slowly open the upstream and downstream shutoff valves.



WARNING

The CIP/SIP pin must be removed before regulator is placed in operation. The pin will inhibit the proper operation and function of the regulator, a result in overpressure of the downstream system.

Note

When the pressure load option is used, always open block valves on main line before applying loading pressure to the spring case to avoid diaphragm damage.

Adjustment

The setting of the regulator can be varied within the pressure range stamped on the nameplate. It is important to have a nominal amount of downstream demand while adjusting the setpoint. Typically 5 to 10% of maximum capacity is adequate. To change the outlet pressure, loosen the locknut (key 17, Figure 4) or locking lever (key 22, Figure 4) and turn the adjusting screw (key 18, Figure 4) clockwise to increase outlet pressure or counterclockwise to decrease it. Monitor the outlet pressure with a test gauge during the adjustment. Tighten the locknut or locking lever to maintain the desired setting. All regulator springs can be backed off to provide zero outlet. Available spring ranges, recommended maximum allowable differential pressures and spring data are shown in Tables 2 and 3.

Shutdown

Close the upstream shutoff valve. Close downstream shutoff valve. Open the bleed valve between the regulator and the downstream shutoff valve. Without changing regulator spring adjustment, all pressure between the upstream and downstream shutoff valves is released through the bleed valve, since the regulator opens in response to the decreased outlet pressure.

Note

When the pressure loaded option is used, bleed all pressure from the spring case before bleeding pressure under the diaphragm to avoid internal part damage.

Clean in Place or Steam in Place (CIP/SIP)

To prevent valve plug closing, insert the CIP/SIP pin (key 30, Figure 4) completely so that spring ball in the end of pin is secured into the vent hole on the side of the spring case. Be sure to insert pin when regulator is in the open position.



WARNING

The CIP/SIP pin must be removed before regulator is placed in operation. The pin will inhibit the proper operation and function of the regulator and result in overpressure of the downstream system.

Maintenance



WARNING

Before disassembling the regulator, isolate it from the pressure system and release all pressure from the regulator as specified in the Shutdown section. Relieve all spring compression and isolate regulator from the pressurized system prior to removing the clamp (key 15).

Due to normal wear that may occur, parts must be periodically inspected and replaced if necessary. The frequency of inspection depends on the severity of service conditions. A preventative maintenance schedule should be implemented that checks regulator setpoint and lockup and that evaluates regulator performance to the system requirements. Regulator performance outside the system requirements will require either adjustment, part maintenance or regulator replacement to meet system requirements.

This section includes instructions for disassembly and replacement of parts. All key numbers refer to Figure 4 or 5.

1. If damage to the diaphragm or seating surface is suspected or to inspect other internal parts, loosen the locknut (key 17) or locking lever (key 22) and turn the adjusting screw (key 18) counterclockwise to remove all spring compression.
2. Loosen the sanitary clamp (key 15) to remove the spring case (key 14). Remove the upper spring seat (key 11) and regulator spring (keys 12 and 13, when applicable).

Note

The regulator should be taken out of the line if the internal wetted parts need to be inspected. If the regulator is kept in the line the plug could fall into the inlet piping.

3. Remove body from the line to inspect the internal wetted parts.

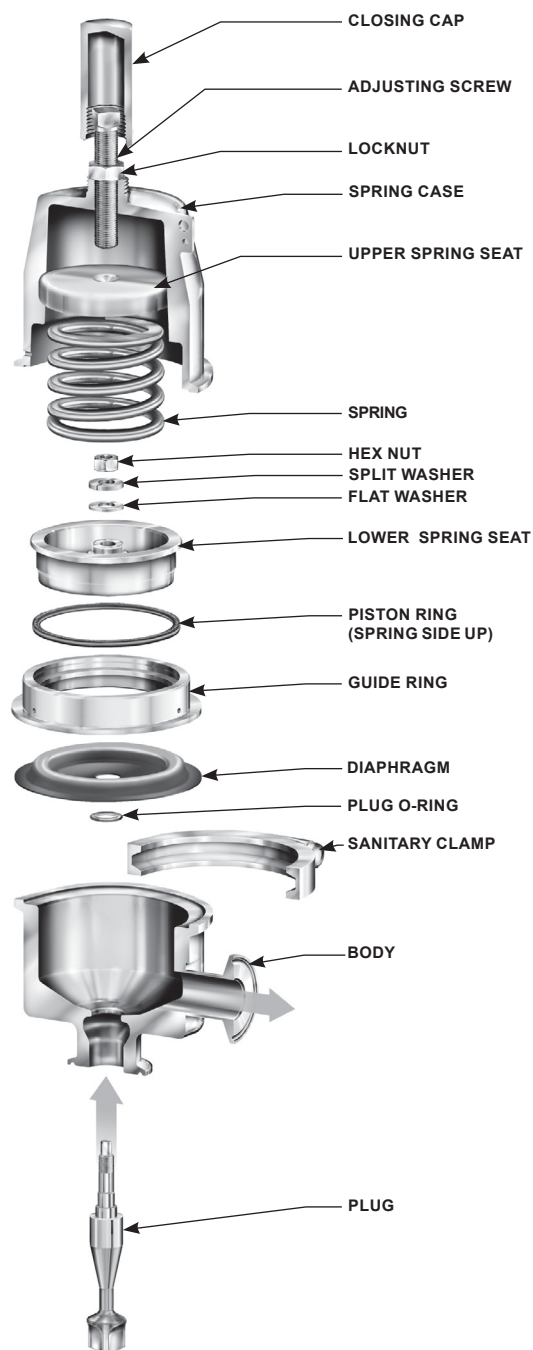


Figure 3. Type SR5 Parts Explosion

Note

If the product is disassembled and includes a metal diaphragm, both diaphragm gaskets (key 6) should be replaced to ensure a good seal at the diaphragm flange.

If removed from the guide ring (key 9), the piston ring (key 5) should be replaced. Take care not to damage the piston ring during replacement.

Table 4. Temperature Capabilities

SEAT TYPE	DIAPHRAGM MATERIAL	O-RING MATERIAL	TEMPERATURE RANGE	
			°F	°C
Metal (Stainless Steel)	Ethylene Propylene Diene (EPDM)/ Stainless Steel	EPDM	-20 to 275	-28 to 135
	Stainless Steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 400	-6 to 204
	Polytetrafluoroethylene (PTFE)/ Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400	-6 to 204
Soft (Polytetrafluoroethylene (PTFE)/Stainless Steel)	EPDM/Stainless Steel	EPDM	-20 to 150	-28 to 65
	Stainless Steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 150	-6 to 65
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 150	-6 to 65
Soft (Polyether Ether Ketone (PEEK)/Stainless Steel)	EPDM	EPDM	-20 to 275	-28 to 135
	Stainless Steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 400	-6 to 204
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400	-6 to 204

1. O-ring material is PTFE for the 1/2 and 3/4 in. / 15 and 20 mm sizes. Temperature range is the same.

4. Loosen the nut (key 16) while holding wrench flats on plug (key 3) to inspect internal wetted parts. Remove the lock washer (key 24) and flat washer (key 23). The lower spring seat (key 8), guide ring (key 9), diaphragm (key 7) and plug O-ring (key 3) can now be removed from the plug (key 2). An optional lower diaphragm plate (key 10) and O-ring (key 4) are included for the constructions offering protection against vacuum conditions.
5. Remove the plug (key 2) through the inlet port of the body (key 1). Inspect parts for damage. Replace if damage is noted. Refer to the section titled Soft Seat Maintenance when the seat needs to be replaced.
6. Reassemble in the reverse order of the above procedure. Start by inserting the plug (key 2) through the inlet port of the body (key 1). The order is listed below or please refer to Figure 3.
 - a.) Plug (key 2)
 - b.) Plug O-ring (key 3)
 - c.) Diaphragm plate (key 10) (vacuum protection construction only)
 - d.) Diaphragm plate O-ring (key 4) (vacuum protection construction only)
 - e.) Diaphragm gasket (key 6) (Metal diaphragms only)
 - f.) Diaphragm (key 7)
 - g.) Diaphragm gasket (key 6) (Metal diaphragms only)
 - h.) Guide ring assembly (keys 9 and 5)
 - i.) Lower spring seat (key 8)
 - j.) Flat Washer (key 23)
 - k.) Lock Washer (key 24)
 - l.) Hex Nut (key 16)
7. Hold wrench flats on plug (key 2), then torque hex nut (key 16) to 6 to 8 in-lbs / 0.7 to 0.9 N•m for the 1/2 and 3/4 in. / 15 and 20 mm, 5 to 7 ft-lbs / 7 to 9 N•m for the 1 and 1-1/2 in. / 25 and 40 mm and 28 to 30 ft-lbs / 38 to 41 N•m for the 2 and 3 in. After tightening, apply threadlocker medium/high strength sealant or equivalent to the nut/thread interface.

8. Position diaphragm assembly in body (key 1). Replace regulator spring (keys 12 and 13, when applicable) and upper spring seat (key 11). Replace the spring case (key 14) and sanitary clamp (key 15). Torque clamp nuts to 20 to 22 ft-lbs / 27 to 30 N•m for the 1/2 through 1-1/2 in. / 15 through 40 mm and 38 to 40 ft-lbs / 52 to 54 N•m for the 2 and 3 in. / 50 and 80 mm.

Note

Lubricate the adjusting screw (key 18) threads and the sanitary clamp bolt threads (key 15) to reduce galling of the stainless steel. Factory recommends anti-seize lubricant.

Keep even spacing between clamp halves when tightening clamp nuts. This will ensure even loading of the diaphragm. If clamp halves touch, please contact factory for a replacement clamp.

9. Install in pipeline and follow Startup and Adjustment procedures.

Soft Seat Maintenance

Take care not to damage the internal/wetted surface finish when performing Soft Seat Maintenance.

1. Disassemble the regulator as stated above.
2. To access soft seat (key 28), unscrew the lower plug (key 27) from the upper plug (key 26). If damaged, replace with new part. Apply Loctite 246 or equivalent to the male threads before assembly. Proper torque for the assembly is 6 to 8 in-lbs / 0.7 to 0.9 N•m for the 1/2 and 3/4 in. / 15 and 20 mm; 8 to 10 in-lbs / 0.9 to 1.1 N•m for the 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm; and 5 to 7 ft-lbs / 7 to 9 N•m for the 1-1/2 in. / 40 mm. Torque for 2 and 3 in. / 50 and 80 mm is 23 to 25 ft-lbs / 31 to 34 N•m.
3. Reassemble as stated in the prior section.

Parts Ordering

When corresponding with your local Sales Office about this equipment, always reference the equipment serial number and FS number that can be found on the nameplate.

When ordering replacement parts, reference the key number of each needed part as found in the following parts list.

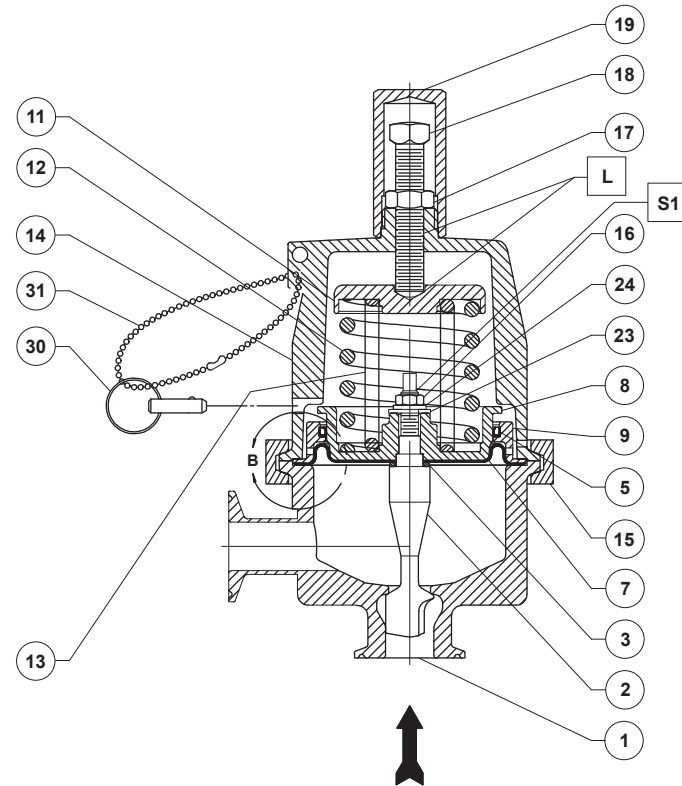
Separate kits containing all recommended spare parts are available.

Parts List

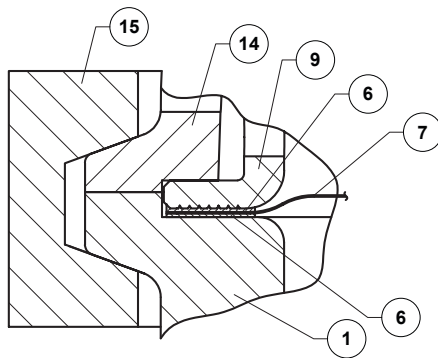
Key	Description	Part Number
Parts Kits		
	Diaphragm Kits (includes keys 3, 5 and 7. Stainless steel kits include key 6, quantity 2). Does not include all applicable parts for changing between elastomer and metal diaphragm constructions. See parts list for differences.	
	1/2 and 3/4 in. / 15 and 20 mm bodies EPDM diaphragm and O-ring Stainless Steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings PTFE/Fluorocarbon (FKM) Diaphragm and O-rings	RSR58X00E12 RSR58X00S12 RSR58X00V12
	1 and 1-1/2 in. / 25 and 40 mm bodies EPDM diaphragm and O-rings Stainless Steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings PTFE/Fluorocarbon (FKM) Diaphragm and O-rings	RSR58X00E22 RSR58X00S22 RSR58X00V22
	2 and 3 in. / 50 and 80 mm bodies EPDM diaphragm and O-rings Stainless Steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings	RSR58X00E32 RSR58X00S32
	Soft Seat Kits (includes keys 26, 27 and 28)	
	1/2 in. / 15 mm body PTFE/Stainless Steel PEEK/Stainless Steel	GE06787X012 GE06787X022
	3/4 in. / 20 mm body PTFE/Stainless Steel PEEK/Stainless Steel	GE06796X012 GE06796X022
	1 in. / 25 mm body PTFE/Stainless Steel PEEK/Stainless Steel	GE06193X012 GE06193X022
	1-1/2 in. / 40 mm body PTFE/Stainless Steel PEEK/Stainless Steel	GE06194X012 GE06194X022
	2 and 3 in. / 50 and 80 mm bodies PTFE/Stainless Steel PEEK/Stainless Steel	GE14008X012 GE14008X022
1	Body 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 in. / 25 mm body 1-1/2 in. / 40 mm body 1-1/2 x 1 in. / 40 x 25 mm body 2 in. / 50 mm body 3 in. / 80 mm body	GE07951X012 GE07952X012 GE07949X012 GE07950X012 GE07776X012 GE13988X012 GE13989X012
2	Plug (metal seat) 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	GE06785X012 GE06794X012 GE02890X012 GE06190X012 GE14006X012
3	Plug O-ring 1/2 and 3/4 in. / 15 and 20 mm bodies Elastomer diaphragms EPDM PTFE/Fluorocarbon (FKM) 1/2 and 3/4 in. / 15 and 20 mm bodies (continued) Stainless Steel diaphragms PTFE EPDM 1 and 1-1/2 in. / 25 and 40 mm bodies Elastomer diaphragms EPDM PTFE/Fluorocarbon (FKM) Stainless Steel diaphragms PTFE/Fluorocarbon (FKM) EPDM 2 and 3 in. / 50 and 80 mm bodies Elastomer diaphragms EPDM PTFE/Fluorocarbon (FKM) Stainless Steel diaphragms PTFE/Fluorocarbon (FKM) EPDM	1H2919X0022 1P8453X0042 GE10788X012 14B1935X032 1D2888X0042 1C7822X0142 16A6903X022 14A1968X042 1B8855X0112 12A0006X022 12A0006X022 1B8855X0112
4	Diaphragm Plate O-ring 1 and 1-1/2 in. / 25 and 40 mm bodies EPDM PTFE/Fluorocarbon (FKM) 2 and 3 in. / 50 and 80 mm bodies EPDM PTFE/Fluorocarbon (FKM)	1V3234X0042 1V3234X0052 1V3303X0082 1V3303X0092
5	Piston Ring 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE09274X012 GE09273X012 GE14027X012
6	Diaphragm Gasket for use with 316L Stainless steel diaphragm only, PTFE (2 required) 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE06772X012 GE06076X012 GE13995X012
7	Diaphragm 1/2 and 3/4 in. / 15 and 20 mm bodies EPDM 316L Stainless steel PTFE/Fluorocarbon (FKM) 1 and 1-1/2 in. / 25 and 40 mm bodies EPDM 316L Stainless steel PTFE/Fluorocarbon (FKM) 2 and 3 in. / 50 and 80 mm bodies EPDM 316L Stainless steel PTFE/Fluorocarbon (FKM)	GE06778X012 GE06777X012 GE06779X012 GE02299X012 GE02643X012 GE06086X012 GE14001X012 GE14000X012 GE14002X012
8	Lower Spring Seat 1/2 and 3/4 in. / 15 and 20 mm bodies Without Vacuum Protection 1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies Without Vacuum Protection Elastomer Diaphragm Stainless steel With Vacuum Protection 2 and 3 in. / 50 and 80 mm bodies Without Vacuum Protection With Vacuum Protection	GE06774X012 GE06330X012 GE11038X012 GE02638X012 GE13997X012 GE13998X012
9	Guide Ring 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies For EPDM/Stainless Steel Diaphragm For PTFE/Fluorocarbon (FKM) Diaphragm	GE06770X012 GE02637X012 GE13994X012 GE29277X012

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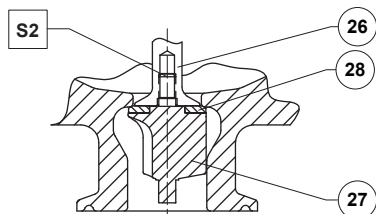
Key	Description	Part Number	Key	Description	Part Number
10	Diaphragm Plate 1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE02642X012 GE13999X012	23	Flat Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1C3329X0022 GC060805X22 1A5189X0022
11	Upper Spring Seat 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE06773X012 GE02639X012 GE13996X012	24	Lock Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1H3395X0012 1C2257K0012 1A639638992
12	Spring	See Table 2	25	Sealing Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	12A3880X012 GE20712X022 1V424699012
13	Inner Spring	See Table 2			
14	Spring Case 1/2 and 3/4 in. / 15 and 20 mm bodies CF8M Stainless Steel Standard Pressure Loaded 316 Stainless Steel Standard Pressure Loaded 1 and 1-1/2 in. / 25 and 40 mm bodies CF8M Stainless Steel Standard Pressure Loaded 316 Stainless Steel Standard Pressure Loaded 2 and 3 in. / 50 and 80 mm bodies CF8M Stainless Steel Standard Pressure Loaded 316 Stainless Steel Standard Pressure Loaded	 GE06767X012 GE06768X012 GE17730X012 GE14020X012 GE02641X012 GE06118X012 GE17755X012 GE14021X012	26	Upper Plug 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	GE06790X012 GE06799X012 GE06195X012 GE06201X012 GE14011X012
			27	Lower Plug 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	GE06791X012 GE06800X012 GE06196X012 GE06202X012 GE14012X012
			28	Soft Seat 1/2 in. / 15 mm body PTFE PEEK 3/4 in. / 20 mm body PTFE PEEK 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies PTFE PEEK 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	 GE06789X012 GE06789X022 GE06798X012 GE06798X022 GE06197X012 GE06197X022
15	Bolted Clamp 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE06769X012 GE06116X012 GE13993X012			
16	Hex Nut 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	10A1341X022 1A309338992 T1208735252			
17	Hex Nut 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1A3465X0032 T1208635252 1A3511X0072	29	Drive Screw (2 required)	1E953028982
			30	Ring Grip Pin	GE08991X012
			31	Bead Chain, 1/2, 3/4, 1 and 1-1/2 in. / 15, 20, 25 and 40 mm bodies (1 required) and 2 and 3 in. / 50 and 80 mm bodies (2 required)	GE08990X012
18	Adjusting Screw 1/2 and 3/4 in. / 15 and 20 mm bodies Standard T-Handle 1 and 1-1/2 in. / 25 and 40 mm bodies Standard T-Handle 2 and 3 in. / 50 and 80 mm bodies Standard T-Handle	GE08849X012 GE08987X012 GE06080X012 GE08985X012 GE14024X012 GE14025X012	32	Guide Ring Seal 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE18400X012 GE18399X012 GE11039X012
19	Closing Cap 1/2, 3/4, 1 and 1-1/2 in. / 15, 20, 25 and 40 mm bodies Stainless Steel Plastic 2 and 3 in. / 50 and 80 mm bodies	 1E5433X0032 20B3082X012 GE14028X012			
20	Arrow, Flow	- - - - -			
21	Nameplate	- - - - -			
22	Locking Lever 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE08989X012 GE08988X012 GE14026X012			



STANDARD REGULATOR WITH ELASTOMERIC DIAPHRAGM

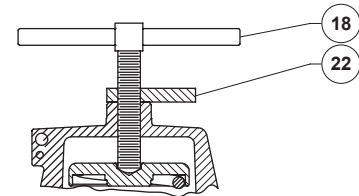


VIEW B – METAL DIAPHRAGM FOR STANDARD REGULATOR

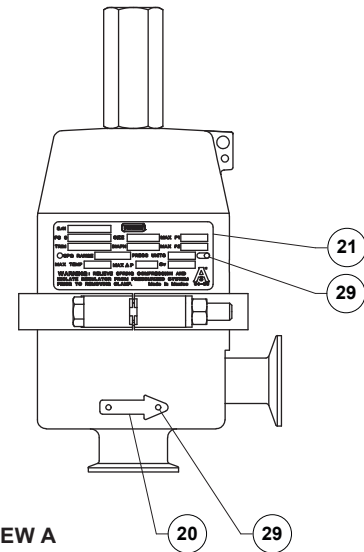


SOFT SEAT OPTION

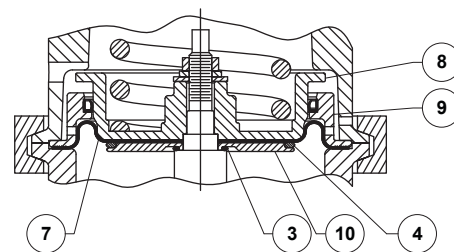
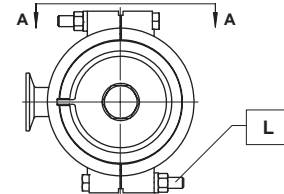
- APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:
 L = ANTI-SEIZE LUBRICANT
 S1 = THREADLOCKER MEDIUM/HIGH STRENGTH SEALANT
 S2 = HIGH TEMPERATURE AND MEDIUM STRENGTH THREADLOCKER SEALANT
 1. Lubricant and sealant must be selected such that they meet the temperature requirements.



T-HANDLE OPTION



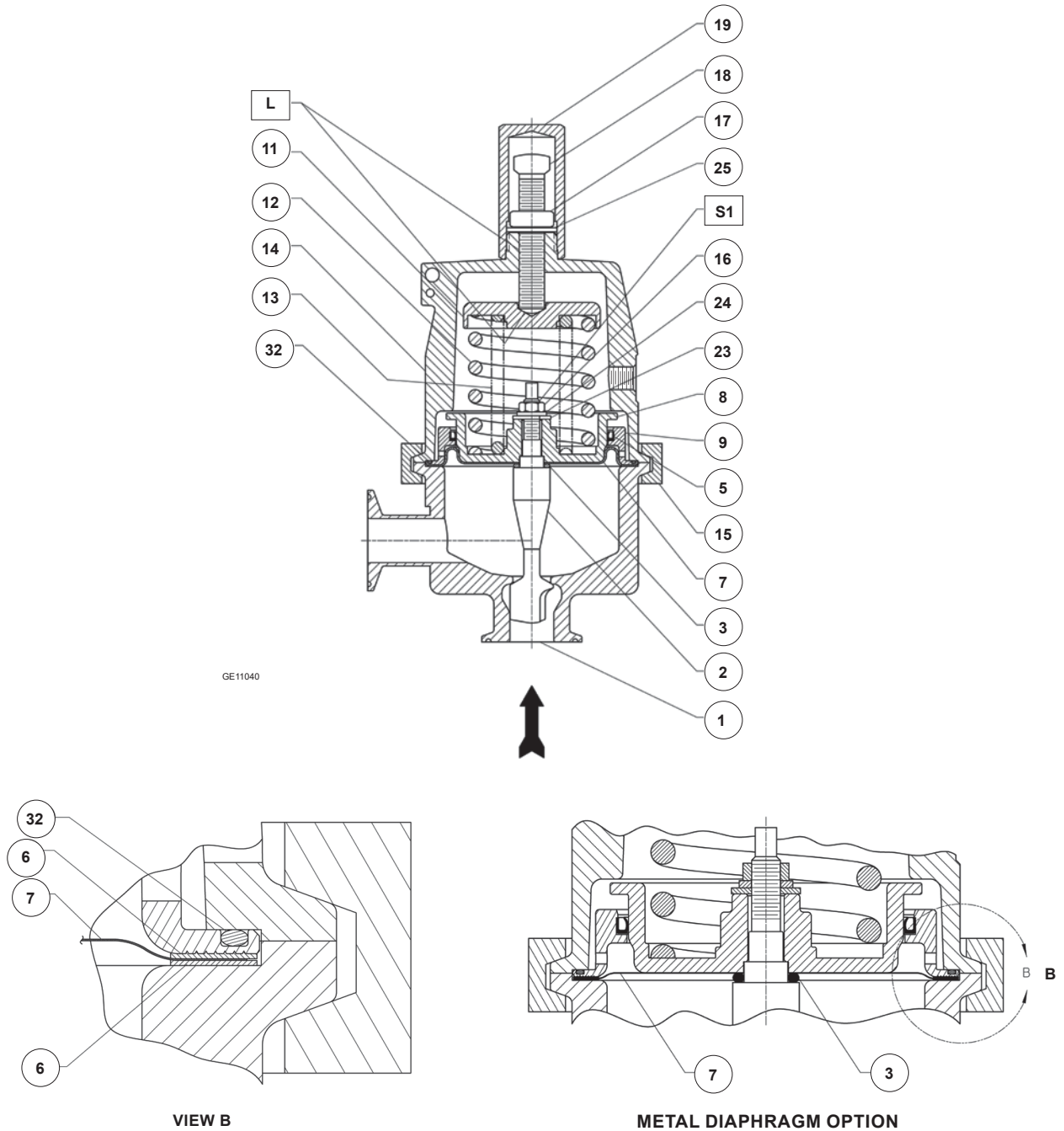
**VIEW A
ROTATED 180°**



VACUUM PROTECTION OPTION

**Figure 4. Type SR5 Sanitary Regulator Assembly
1/2 through 1-1/2 In. / 15 through 40 mm Sizes**

Type SR5



- **APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:**
L = ANTI-SEIZE LUBRICANT
S1 = THREADLOCKER MEDIUM/HIGH STRENGTH SEALANT
S2 = HIGH TEMPERATURE AND MEDIUM STRENGTH THREADLOCKER SEALANT
 1. Lubricant and sealant must be selected such that they meet the temperature requirements.

Figure 5. Type SR5 Sanitary Regulator Assembly with Pressure Loaded Spring Case
 1/2 through 1-1/2 In. / 15 through 40 mm Sizes

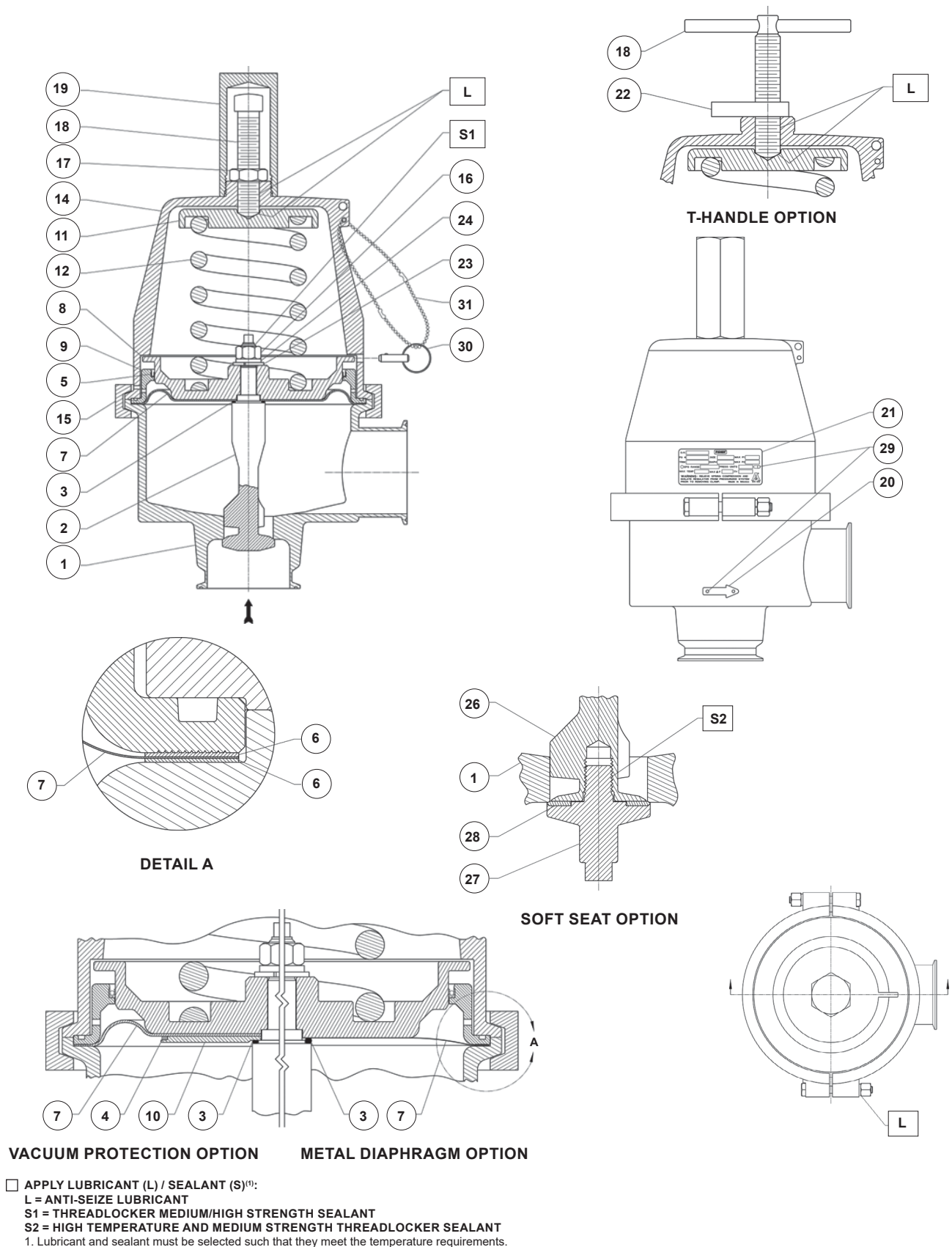


Figure 6. Type SR5 Sanitary Regulator Assembly
2 and 3 In. / 50 and 80 mm Sizes

Type SR5

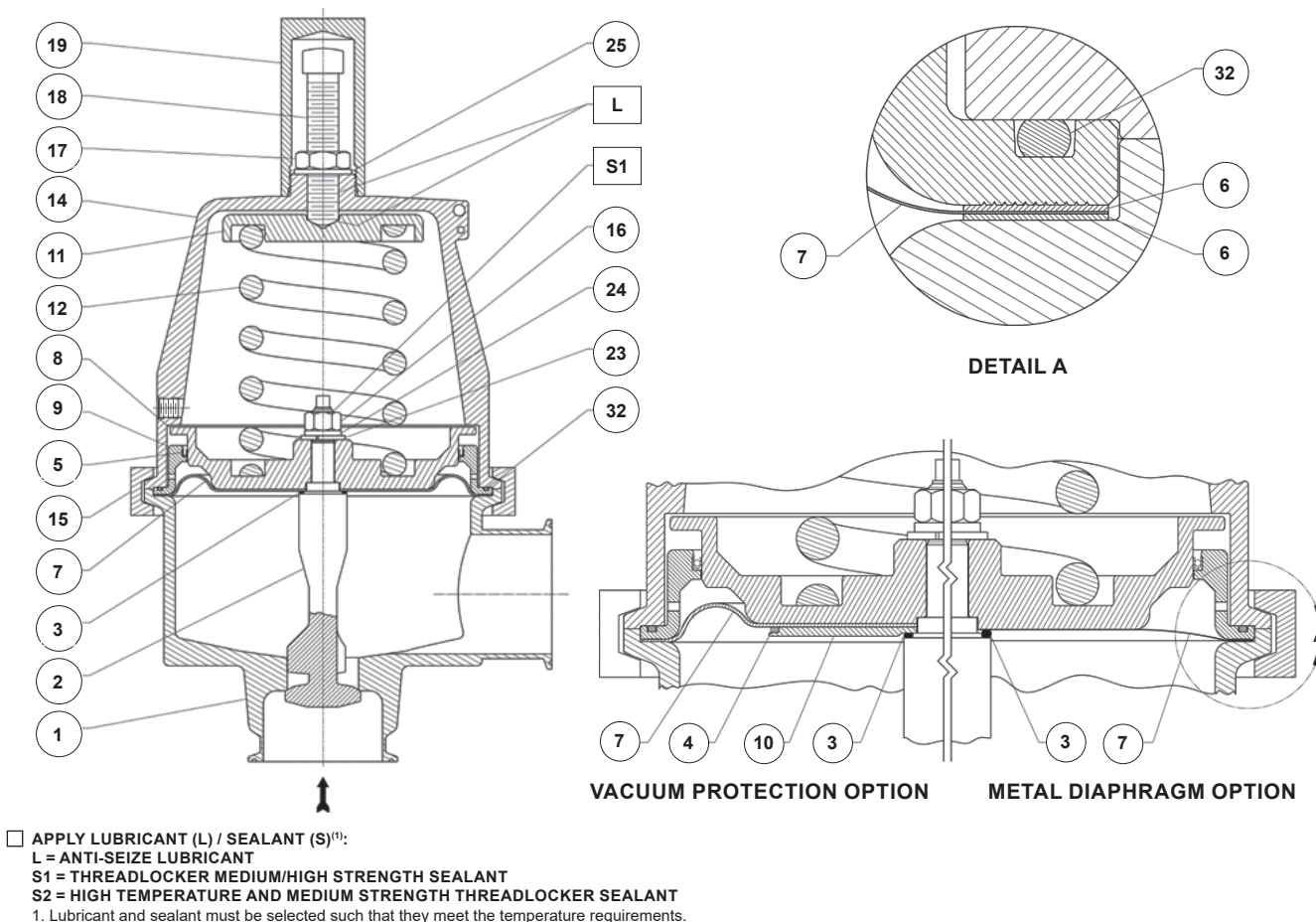


Figure 7. Type SR5 Sanitary Regulator Assembly with Pressure Loaded Spring Case
 2 and 3 In. / 50 and 80 mm Sizes

✉ Webadmin.Regulators@emerson.com

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🌐 LinkedIn.com/company/emerson-automation-solutions

🐦 Twitter.com/emr_automation

Emerson Automation Solutions

Americas

McKinney, Texas 75070 USA
 T +1 800 558 5853
 +1 972 548 3574

Europe

Bologna 40013, Italy
 T +39 051 419 0611

Asia Pacific

Singapore 128461, Singapore
 T +65 6777 8211

Middle East and Africa

Dubai, United Arab Emirates
 T +971 4 811 8100

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